BRIEF NOTES ON THE GEOLOGY OF THE JASPER GORGE AREA

Brian Whitehead*

The sediments which outcrop in the Jasper Gorge area were laid down in the Victoria River Basin approximately 1000 million years ago. This basin was an intracratonic shallow gently subsiding centre of sedimentation in which over 5000 metrcs of sedimentation were laid down during the Middle and Late Proterozoic periods (1700-approximately 700 million years ago).

The prominent sandstone forming the gorge belongs to the rock formation called Jasper Gorge Sandstone. This unit consists of massive and blocky medium grained sandstone. The underlying rock types which belong to the Stubb Formation and the Wondoan Hill Formation consist of dark grey shale, siltstone, claystone, some mudstone and glauconitic sandstone.

The Wondoan Hill Formation was laid down in both shallow and deep marine environments. The Stubb Formation was deposited in a restricted, gradually deepening basin formed on the underlying Wondoan Hill Formation. The Jasper Gorge Sandstone was formed during a major transgression in which a shallow sea spread over the entire region.

All formations in the area are almost flat lying and undeformed, reflecting the stable technoic history of the entire region. Joints and faults are the only obvious structural features.

* Department of Mines and Energy G.P.O. Box 2901 Darwin, N.T. 5794